

Appl. No. 09/853,227  
Atty. Docket No. 4519RC2R2  
Amdt. Dated May 5, 2005  
Reply to Office Action of May 5, 2004  
Customer No. 27752

### REMARKS

Claims 1, 3-37 are pending in the present application. No additional claims fee is believed to be due. Claims 13, 17, 28-37 are deemed currently withdrawn as a result of an earlier restriction requirement.

Claim 24 is canceled without prejudice.

Claims 1 and 23 have been amended in order to more specifically characterize the present invention. Specifically, Claims 1 and 23 have been amended wherein a surfactant component selected from the group consisting alkyl and alkyl ether sulfates, sulfonates or mixtures thereof. Support for the amendment is found in the specification at page 6, line 34, page 7, lines 29-34, page 8, lines 17-33, page 9, lines 17-28, as well as in the Examples at page 33, lines 10-15 of the specification. New Claim 23 has been added and support for this claim is found in the specification on page 11, lines 11-20.

It is believed these changes do not involve any introduction of new matter. Consequently, entry of these changes is believed to be in order and is respectfully requested.

### 35 U.S.C. § 102(e)

Claims 1, 3-12, 14-16 and 18-26 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent 5,977,036 (Guskey). Applicants respectfully traverse this rejection.

Guskey discloses hair styling shampoo compositions which comprise from about 5% to about 50% by weight of a surfactant selected from the group consisting of anionic surfactants, zwitterionic or amphoteric surfactants having an attached group that is anionic at the pH of the composition, from about 0.025% to about 3% by weight of an organic cationic polymer having a cationic charge density of from about 0.2 meq/gm to about 7 meq/gm and a molecular weight of from about 5000 to about 10 million, from about 0.1% to about 10% by weight of a water-insoluble hair styling polymer, from about 0.1% to about 10% by weight of a water-insoluble volatile solvent, and from about 0.005% to about 2.0% by weight of a crystalline hydroxyl-containing stabilizing agent and from about 26.5% to about 94.9% by weight of water.

As now amended, the present invention is directed towards a hair conditioning shampoo composition comprising from about 5% to about 50%, by weight, of a surfactant component selected from the group consisting of alkyl and alkyl ether sulfates, sulfonates or mixtures thereof, from about 0.01% to about 5%, by weight, of a water soluble, organic, cationic polymer hair conditioning agent having a cationic charge density of from about 0.1 meq/gram to about 1.2 meq/gram and wherein the water soluble, organic, cationic polymer hair conditioning agent has a molecular weight greater than 600,000; and an aqueous carrier; wherein the cationic polymer is in a complex coacervate phase in the shampoo composition or forms a complex coacervate upon

Appl. No. 09/853,227  
Atty. Docket No. 4519RC2R2  
Amdt. Dated May 5, 2005  
Reply to Office Action of May 5, 2004  
Customer No. 27752

dilution of the shampoo composition with water. By this combination, the lower charge density cationic polymer will yield higher levels of coacervate and therefore higher wet conditioning benefits to the hair.

Guskey neither discloses nor makes obvious the present invention's requirement that a surfactant component selected from the group consisting of alkyl and alkyl ether sulfates, sulfonates or mixtures thereof, is in combination with a lower charge density cationic polymer. The selection of this specific surfactant in combination with a lower charge density cationic polymer yields significantly higher levels of coacervate when compared to the compositions disclosed and exemplified in Guskey. Guskey broadly discloses a deterative surfactant selected from the group consisting of anionic surfactants, zwitterionic and amphoteric surfactants and combinations thereof. Clearly Guskey's broad disclosure of surfactants, would not lead to the present invention, as now amended, and specifically limited to alkyl and alkyl ether sulfates, sulfonates or mixtures thereof. The novelty of the alkyl and alkyl ether sulfates and sulfonate surfactants, is that by selecting these specific surfactant, in combination with a low charge density/higher molecular weight cationic polymer, the present invention has resulted in significant increase in coacervate deposition and thus higher wet conditioning benefits to the hair.

Further, Guskey exemplifies (Column 28) the combination of an anionic surfactant in combination with a high level of amphoteric surfactant, namely Lauroamphoacetate at 6%, and further in combination with a cationic polymer in the broad range of 0.2 - 7 meq/gm and a molecular weight of 5000 to 10 million. Guskey's teachings and claims of the combination of an anionic surfactant with an amphoteric surfactant, for example at 6% Lauroamphoacetate, results in a lower coacervate deposition. However, for the present invention, by selection of an alkyl and alkyl ether sulfates, sulfonates or mixtures thereof in combination with the selection of a low charge density polymer at a higher molecular weight (0.1 meq/gram to about 1.2 meq/gram with a molecular weight of greater than 600,000) there is an increase in coacervate deposition and thus higher wet conditioning benefits to the hair.

It has been previously known that higher charge density polymers are superior as deposition aids for small particle dispersed agents. However the present invention has found that by selecting low charge density cationic polymers, although they are less efficient as deposition aids, are in fact better than the higher charge density cationic polymers for providing wet conditioning benefits.

The Examiner has asserted that as to the claimed complex coacervate formation, it is argued that such a property must be possessed by the anticipatory composition because it is the same as that claimed. However, Applicants kindly traverse this assertion as the present invention, as now amended, is a specific selection of alkyl and alkyl ether sulfates, sulfonates or mixtures thereof in combination with the selection of a low charge density polymer at a higher molecular weight that results in an increase in complex coacervate formation.

Appl. No. 09/853,227  
Atty. Docket No. 4519RC2R2  
Amdt. Dated May 5, 2005  
Reply to Office Action of May 5, 2004  
Customer No. 27752

Therefore, Guskey does not disclose the present invention. Guskey does not disclose or recognize the relationship that the amount of coacervate actually increases as the charge density of the cationic polymer decreases, and further wherein there is no disclosure in Guskey that the lower charge density cationic polymer will yield higher levels of coacervate when combined with the selection of alkyl and alkyl ether sulfates, sulfonate surfactants, and therefore higher wet conditioning, there is no motivation to select the present invention's lower charge density cationic polymers wherein the cationic polymer is in a complex coacervate phase in the shampoo composition or forms a complex coacervate upon dilution of the shampoo composition with water, as required by the present invention. And there is no motivation to select the specific alkyl and alkyl ether sulfates or sulfonate surfactants.

Therefore, Guskey neither discloses nor makes obvious this component of the present invention. Applicants kindly request reconsideration.

Rejection Under 35 USC 103(a) Over Guskey (U.S. Patent 5,977,036)

Claim-27 has been rejected under 35 USC 103(a) as being unpatentable over U.S. Patent 5,977,036 (Guskey). Applicants respectfully traverse this rejection.

In order to establish a *prima facie* case of obviousness, the Examiner must show that (1) there is some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings, (2) there is a reasonable expectation of success, and (3) all of the limitations of the claims are taught or suggested in the prior art (M.P.E.P. § 2143).

Guskey does not establish a *prima facie* case of obviousness because it does not teach or suggest all of Applicants' claim limitations. Specifically, Guskey does not teach the present invention's requirement and selection of a surfactant component selected from the group consisting of alkyl and alkyl ether sulfates, sulfonates or mixtures thereof, in combination with a lower charge density cationic polymer. The selection of this specific surfactant in combination with a lower charge density cationic polymer yields significantly higher levels of coacervate when compared to the compositions disclosed and exemplified in Guskey, as disclosed and discussed above. Claim 27, dependent from Claim 1, also requires this present claim limitation.

Therefore, there is no *prima facie* case of obviousness in view of Guskey. In light of the arguments presented herein, it is respectfully submitted that the rejection of the claims under 35 U.S.C. § 103(a) be withdrawn.

Appl. No. 09/853,227  
Atty. Docket No. 4519RC2R2  
Amdt. Dated May 5, 2005  
Reply to Office Action of May 5, 2004  
Customer No. 27752

Conclusion

In light of the above remarks, it is requested that the Examiner reconsider and withdraw the rejection under 102(e) and 103(a). Early and favorable action in the case is respectfully requested.

Applicants have made an earnest effort to place their application in proper form and to distinguish the invention as now claimed from the applied reference. In view of the foregoing, Applicants respectfully request reconsideration of this application, entry of the amendments presented herein, and allowance of Claims 1, 3-12, 14-16, and 18-27.

Respectfully submitted,  
The Procter & Gamble Company

By Linda M. Sivik  
Linda M. Sivik  
Agent for Applicant(s)  
Registration No. 44,982  
(513) 626-4122

May 5, 2005  
Customer No. 27752